RFPF - 1000.01 (5/95)
Formerly RF-47940

Page 1 of _1__

Document Modification Request

[redacted]

Print or Type all information (except signatures). Process procedures in accordance with 1-A01-PROC DEV-400, Procedure Process.

25. DMR No. 96-DMR-RMRS-120

1. Name/Phone/Pager/Location	2. Date
Michael K. Pepping 3075/7464/T893B	12/16/96
3. Existing Document Number and Revision: FO.6 Rev 2	4. Document Type: ☒ Procedure ☐ Plan ☐ Other
5. Document Title: Handling of Personal Protection Equipment	

6. Item	7. Page	8. Step	9. Proposed Modification
1	All	G	Replace EG&G with Environmental Restoration Project. team where applicable
2	All	G	Replace RFP with RFETS
3	~~All~~	~~G~~	~~Replace subcontractor with subcontractor or RFETS project personnel~~
4	All	G	Replace Personal Decontamination Line (PDL) with Contamination Reduction Zone (CRZ)

10. Item	10a. Justification (reason for modification, EJO #, TP #, etc.)
	Make procedure current with plant and contractor name changes. Also item #4 "PDL" is not used on plantsite, "CRZ" is the correct terminology.

[redacted] (print/sign/date)

11. ☒ Process
☐ Do not Process (state reason in Block 10a) M. C. Broussard (print/sign/date) 12/16/96

12. ☒ Process (Complete Blocks 13-22)
☐ Do not Process (state reason in Block 10a)

13. New Document/Rev. No. (if new or changed)

Complete either Section 14a. or 14b., as applicable. For procedures, attach completed Procedure Modification Worksheet from 1-A01-PROC DEV-400.

14a. Type of Complete Modification
☐ New ☐ Revision ☐ One-Time-Use ☐ Cancellation

14b. Changes: (check all that apply.)
☐ Intent Change ☒ Nonintent Change ☐ Regular
☐ Editorial Correction ☐ Interim Approval Requested - Needed for Immediate Use (14-day limit for obtaining final approval)

Additional Attributes:
☐ Temporary ☐ One-Time-Use ☐ Limited Distribution

15. ERM Change Control Board Required: ☐ Yes ☐ No (Applicable only to new procedures, revisions, and intent changes.)

List the reviewing disciplines in Block 16. After concurrence has been obtained (in accordance with 1-A01-PROC DEV-400), enter the name of the reviewer followed by /s/ in block 17. If the reviewer indicates *No comments*, the review signature constitutes concurrence. Enter the date concurrence is obtained in Block 18.

16. Organization	17. Reviewer/Concurror	18. Date	16a. Organization	17a. Reviewer/Concurror	18a. Date
Rad Con Coor.	J. Andersen	12/16/96			
ESH&Q	M.D. Schreckengost	12/16/96			
QA	Greg DiGregorio	12/17/96			

19. Assigned SME/Phone/Pager/Location	20. Cost Center	21. Charge Number	22. Requested Completion Date
Michael K. Pepping 3075/7464/T893B	0203		12-31-96

23. Prescreen/Screen/USQD Number	24. Independent Safety Review Meeting and Date Independent Safety Review Not Required.

26. After obtaining ALL required signatures: Responsible Manager's Approval (print//sign/date) (Not required for New Procedures or Revisions)

27. Effective Date: 12-27-96

ADMIN RECORD

A-SW-002355

THIS IS ONE VOLUME OF A FIVE VOLUME SET WHICH INCLUDES:
VOLUME I: FIELD OPERATIONS (FO)
VOLUME II: GROUNDWATER (GW)
VOLUME III: GEOTECHNICAL (GT)
VOLUME IV: SURFACE WATER (SW)
VOLUME V: ECOLOGY (EE)

TABLE OF CONTENTS FOR VOLUME I: FIELD OPERATIONS

FO.31-FO.39 have been incorporated into the OU1 Specific Operating Procedures Manual.
FO.43 has been incorporated into the OU2 Specific Operating Procedures Manual.

RFETS

~~EG&G ROCKY FLATS PLANT~~
EMD MANUAL OPERATION SOP

Manual:	**5-21000-OPS**
Procedure No.:	**FO.6, Rev. 2**
Page:	**1 of 11**
Effective Date:	**March 1, 1992**
Organization:	**Environmental Management**

Category 2

TITLE:
HANDLING OF PERSONAL
PROTECTIVE EQUIPMENT

Approved By:

(Name of Approver) 5/2/92 (Date)

1.0 TABLE OF CONTENTS

REVIEWED FOR CLASSIFICATION/UCNI
By
Date 4, 1992

2.0 PURPOSE AND SCOPE

The environmental materials generated from Environmental Management (EM) field activities will be handled in accordance with the Rocky Flats ~~Plant (RFP)~~ RFETS EM program. This standard operating procedure (SOP) describes procedures that will be used by subcontractors at RFP to handle disposable personal protective equipment (PPE). These procedures are intended to be sufficiently detailed so that conformance with them will result in reliable handling and management of PPE used during EM field activities.

3.0 RESPONSIBILITIES AND QUALIFICATIONS

Personnel using light or heavy equipment, scientific monitoring devices, or operating company vehicles must have appropriate training or licenses.

The subcontractor's site manager is responsible for coordinating the removal and transfer of all environmental materials and refuse from the project work area.

Disposable PPE considered not contaminated (see Section 6.3) will be bagged, sealed, labeled, and placed in designated cargo containers in the EM contractor's yard by the subcontractor's personnel. ~~EG&G~~ ER Project team personnel will dispose the contents of the cargo containers at the landfill. PPE suspected of containing radioactive and/or hazardous substances will be bagged, sealed, labeled, and placed in a cargo container in the contamination reduction zone specifically designated for potentially contaminated disposable PPE. All PPE or other disposable materials will be characterized with field instruments prior to bagging. Under no circumstances will an unlabeled plastic bag be placed in either the not contaminated or the potentially contaminated cargo container. An accompanying COC will be filled out by the subcontractor in duplicate. At the time the PPE is turned in the ~~EG&G~~ ER Project team representative will sign the COC and return one copy to the subcontractor. Hours for PPE collection will be set by the ~~EG&G~~ ER Project team representative.

Radiological Engineering-approved subcontractor Health and Safety Specialists are responsible for conducting organic vapor and radiation screenings of equipment, samples, PPE, and personnel before they leave potentially contaminated work areas.

ER Project team
~~EG&G's~~ personnel are responsible for the collection, movement, storage, treatment, and disposal of solid environmental materials from the cargo containers in the contractor's yard.

4.0 REFERENCES

4.1 SOURCE REFERENCES

The following is a list of references reviewed prior to the writing of this procedure:

A Compendium of Superfund Field Operations Methods. EPA/540/P-87/001. December 1987.

Rockwell International. Policies: Rocky Flats Plant, Use and Color Coding of Drums. RFPM MAT 20-005. November 3, 1989.

4.2 INTERNAL REFERENCES

Related SOPs cross-referenced by this SOP are as follows:

- SOP FO.2, Field Document Control
- SOP FO.8, Handling of Drilling Fluids and Cuttings
- SOP FO.10, Receiving, Labeling, and Handling Environmental Materials Containers
- SOP FO.12, Decontamination Facility Operations

- SOP FO.15, Photoionization Detectors (PIDs) and Flame Ionization Detectors (FIDs)
- SOP FO.16, Field Radiological Measurements

5.0 EQUIPMENT

The following items are required for handling disposable PPE.

- Large clear plastic garbage bags (3 mil)
- Duct tape
- Computer generated adhesive labeling for plastic bags

6.0 PROCEDURES FOR HANDLING OF PERSONAL PROTECTIVE EQUIPMENT

Each project work area will be characterized by ~~EG&G~~ ER Project team prior to any field activity. Work area characterizations will be based on the historical background of the work area and include the chemical results of previous soil, surface water, and groundwater analyses and the results of field radiological surveys conducted by Radiological Engineering-approved subcontractor Health and Safety Specialists. Work areas associated with the EM program field operations fall into two characterizations: potentially contaminated and not potentially contaminated. Work areas currently characterized as potentially contaminated include the following:

- Individual Hazardous Substance Sites (IHSSs)
- Identified Groundwater Plume Areas
- Americium Zone at OU No. 2
- Protected Area (PA)

SOP FO.10, Receiving, Labeling, and Handling Environmental Materials Containers, lists the IHSS work areas at RFP and illustrates the identified groundwater plume areas and the americium area at OU No. 2. All other work areas considered potentially contaminated will be specified in the Work Plan and/or Health and Safety Plan.

Field monitoring, including organic vapor detectors (OVDs) and radiation monitors, will be used during all intrusive activities regardless of the work area characterization. Field monitoring for non-intrusive activities (e.g. surface water sampling) will include radiation monitoring prior to leaving potentially radiologically contaminated areas. PPE generated during EM field operations will be handled depending on the results of the field monitoring. Disposable PPE worn in work areas that are characterized as potentially radiologically contaminated will be screened by Radiological Engineering-approved subcontractor Health and Safety Specialists to determine if the PPE is potentially contaminated. An alpha detector (such as the Ludlum 12-1A with an air proportional probe or an equivalent instrument) will be used to screen PPE and other disposable materials when these materials are dry. When these materials are wet, a Bicron Analyst Fidler (or equivalent instrument) will be used for an initial screening. If a positive reading is encountered, the materials is potentially contaminated and will be handled according to Section 6.2 of is SOP. If no positive reading is encountered when using the Bicron Analyst Fidler (or equivalent), representative samples of the materials or smears will be taken.

After the samples or smears have been taken, wet PPE will be removed within a ~~personal decontamination line~~ at the work area (see Section 6.2). Each worker's PPE will be placed in individual 3 mil plastic bags until the sample or smear results are determined. The individual bags will be sealed and labeled with the same identifying markings as the associated samples or smears.

The samples and smears will be counted using scaler rate meters (e.g., SACA, BCA, or equivalent instruments). If the scaler meters indicate the presence of residual radioactive materials above 20 disintegrations per minute (dpm) on any of the samples or smears, the associated plastic bags will

be placed into 3 mil plastic bags, sealed and labeled as described in Section 6.2, Handling of Potentially Contaminated PPE. The remaining 3 mil plastic bags that had non-radioactive samples and smears will be combined into 3 mil plastic bags. The bags will be sealed and labeled as not contaminated PPE (see Section 6.2).

Disposable PPE worn in not potentially contaminated work areas but where a positive reading was detected on a field monitor will also be screened to determine if the PPE is potentially contaminated. The use of field monitors for the detection of volatile organics and low-level radioactively contaminated substances is discussed in SOP FO.15, Use of Photoionization Detectors and Flame Ionization Detectors; and SOP FO.16, Field Radiological Instruments.

The subcontractor's site manager is responsible for implementing disposable PPE management procedures established by this SOP and procedures referenced in this SOP.

These duties include:

- Consulting with the ~~EG&G EM~~ ER project team manager to resolve any questions concerning the characterization of a work area

- Properly using field monitors during EM activities

- Placing bags containing not contaminated PPE (i.e. PPE worn in not potentially contaminated work areas where no verified positive field monitor readings were encountered or, PPE that has been screened by a Radiological Engineering-approved subcontractor Health and Safety Specialist and found to be not contaminated) in designated the not contaminated cargo containers in the EM contractor's yard.

- Providing, and filling out COC forms and Adhesive labels

- Attaching adhesive labels to bags of PPE.

- Ensuring that plastic bags containing potentially contaminated PPE (i.e. PPE that has been screened by Radiological Engineering-approved subcontractor Health and Safety Specialists and a verified positive field monitor reading was encountered during the screening process) is placed in the appropriate (potentially contaminated) cargo container in the contamination reduction zone located east of the decontamination pad. Potentially contaminated PPE will not be commingled with not contaminated PPE.

6.1 PERSONAL PROTECTIVE EQUIPMENT

PPE is generally defined as clothing or equipment required to be worn by the site-specific Health and Safety Plan (HSP) in order to limit worker's exposure to physical, chemical or radiological health hazards. Any questions regarding whether a given item is considered to be PPE for the purposes of disposal should be directed to the site safety officer.

All disposable PPE worn in a work area characterized as potentially contaminated will be screened by a Radiological Engineering-approved subcontractor Health and Safety Specialist. In not potentially contaminated work areas where a positive reading was detected on either the OVD or the field radiation monitor, PPE will also be screened. Potentially contaminated PPE is any PPE where a verified positive reading was encountered during the screening process.

If no verified positive reading was encountered during the screening process, disposable PPE will be considered not contaminated. In not potentially contaminated work areas where no positive reading was detected on the field monitors, PPE will be considered not contaminated.

In general, the site-specific HSP will describe the PPE to be worn, as well as methods of decontaminating disposable and reusable PPE, such as respirators. In general, plastic bags are prescribed for use in the ~~personal decontamination line~~ to contain discarded PPE.

6.2 HANDLING OF POTENTIALLY CONTAMINATED PPE

Disposable PPE will be considered potentially contaminated if the screening process conducted by Radiological Engineering-approved subcontractor Health and Safety Specialists indicates that the PPE may be potentially contaminated (i.e. a verified positive reading is detected on either the OVD or the field radiation monitor). Workers will establish a ~~personal decontamination line~~ in accordance with the site-specific HSP and will place their PPE in double bagged 3 mil plastic bags while going through the ~~decontamination~~ line. If the PPE is wet an alpha detector will not be able to detect the presence of radioactive substances. Therefore, a Bicron Analyst Fidler (or equivalent instrument) will be used to initially screen for radiologically contaminated PPE and representative samples or smears will be taken (see Section 6.0).

The following procedures will be used to handle potentially contaminated PPE from containers used in a personal decontamination line.

- If respiratory protection was required during the field activity, the last person ~~through the decontamination line~~ will continue to wear the respiratory protection until removal is indicated in these procedures.

- The last person will process through the ~~decontamination line~~ just as the preceding workers.

- After all PPE items have been removed and placed in the clear plastic bags, the plastic bags can be processed.

- The last worker will don a fresh pair of gloves before handling the plastic bags containing PPE at the last decontamination station. The plastic bags containing the discarded potentially contaminated PPE will then be removed from the container, the bags will be compressed in a downwind direction, and the compressed bags will be sealed with duct tape.

- While still wearing the respirator and the fresh pair of gloves, the worker will remove the sealed plastic bags containing PPE from the containers along the decontamination line.

- Where possible, the individual bags of potentially contaminated PPE will be combined into clear 3 mil plastic bags, sealed with duct tape, and marked with a waterproof marker. If it is not possible to combine individual bags into a single bag, each individual bag will be sealed and marked.

- The respirator may be removed after all disposable, potentially contaminated PPE bags have been sealed. The respirator cartridges and gloves will also be removed and placed inside a plastic bag, sealed, and marked.

- Marking for the double 3 mil bags (on the adhesive label) will include the characters "PPE"; the associated well, borehole, trench designation, or sample number and location; date; and either "RADs NOT DETECTED" or "RADs DETECTED (# of counts detected)" as appropriate.

- The plastic bags will be turned into an EG&G representative along with the proper COC documentation, then placed in cargo containers designated for potentially contaminated PPE located in the contamination reduction zone located east of the decontamination pad until characterized.

- In no instance will an unmarked bag be placed in a cargo container.

6.3 HANDLING OF NOT CONTAMINATED PPE

PPE will be considered not contaminated if the work area is characterized as not potentially contaminated and no verified positive reading was detected on either the OVD or the field radiation monitor during tasked activities. PPE that has been screened by a Radiological Engineering-approved subcontractor Health and Safety Specialist where no positive readings were encountered will also be considered not contaminated.

Not contaminated, disposable PPE will normally be handled as ordinary refuse. Disposable PPE and uncontaminated miscellaneous solid environmental materials will be placed in double bagged 3 mil plastic bags at the work area. When full, these plastic bags will be sealed and marked as described in Subsection 6.2.1. These bags will be labeled with an adhesive sticker and turned into the ~~EG&G~~ ER Project team representative with the appropriate COC forms then placed in designated cargo containers located in the contractor's yard. The contents of these cargo containers will be disposed of in the landfill by EG&G personnel.

7.0 DOCUMENTATION

A permanent record of the implementation of this SOP will be kept by documenting field observations and data. Observations and data will be recorded on field log forms. Form FO.8A will be used to document field monitoring results. Forms FO.8B, and FO.16A are also used to verify initial readings above background. It is important to annotate on the field log forms all of the sample locations and sample numbers of the activities for which the PPE was worn. Subcontracting personnel may also choose to document the observations and data in a personal field notebook in addition to the field log forms. If a field book is used, entries should be made with a

black waterproof ink pen. The field notebook should be waterproofed and have consecutively numbered pages. All project files will be turned over to EG&G at this time (see SOP FO.2, Field Documentation).

FIELD MONITORING RESULTS OF CUTTINGS OR CORE

1. Project Location: _____ Site Number: _____ Date: _____

2. CHECK HISTORICAL CHARACTERIZATION
Not Potentially Contaminated_____ RAD_____ Hazardous_____ Mixed_____

3. EQUIPMENT INFORMATION AND BACKGROUND MEASUREMENTS

Manufacturer and Model No.	Serial Number	Probe Type	Probe Serial No.	Calibration Due Date	Background Reading	Units (cpm)

4. SAMPLE MEASUREMENTS

Depth Interval (feet)	Time	OVD* (ppm)	Ludlum* Mod. 12-1A (cpm)	Ludlum* Mod. 31 (cpm)	Piez. (mg/m^3)	Associated Sample Numbers	Smear No.

* If any OVD or RAD measurements are above background measurements, forms FO.8B and/or FO.16A must be completed for verification

Completed By: _____
Print Name Signature

Subcontractor: _____

FIELD MONITORING RESULTS

1. Project Location:_____ Site Number: _____Date: _____

4. SAMPLE MEASUREMENTS (Continued)

Depth Interval (feet)	Time	OVD* (ppm)	Ludlum* Mod. 12-1A (cpm)	Ludlum* Mod. 31 (cpm)	Piez. (mg/m^3)	Associated Sample Numbers

* If any OVD or RAD measurements are above background measurements, forms FO.8A and/or FO.16A must be completed for verification

Completed By: _____
Print Name Signature

Subcontractor:_____

RESULTS OF RADIOLOGICAL MEASUREMENTS IN THE FIELD

Project Name: _____

Date: _____ Site Number: _____

Snow Cover Present (Y/N): _____ Work Surface Wet (Y/N): _____

1. Instruments Used and Background Readings

Manufacturer and Model No.	Serial Number	Probe Type	Probe Serial No.	Calibration Due Date	Background Reading (cpm)

2. Prework Monitoring Results (Ludlum 12)

_____ cpm at Point of Intrusive Activity _____ Highest Measured cpm

3. Sample Monitoring: Intervals Monitored and Associated Samples

Depth Interval (Ft)	Highest Level Noted (cpm)	Associated Sample Numbers

Completed By: _____
Print Name Signature Date

Subcontractor: _____